

ABSTRACT OF THE DISCLOSURE

A rotary pump for fluids which comprises a shaft to rotate about a longitudinal axis and a cylindrical rotor centrally secured to that shaft. A housing encases the shaft and rotor, the housing having interior end walls adjacent to the rotor disks and an interior side wall. Fluid inlet and outlet ports are provided at spaced locations in the housing side wall. Paddles are pivotably secured to the rotor in pockets in the rotor, to pivot about points at rearward sides of the paddles, for movement between extended positions with the paddles extending outwardly beyond the cylindrical surface of the rotor and retracted positions where the paddles are seated entirely within their corresponding pockets. Each paddle and pocket are configured so that when the paddle is in retracted position it provides an exterior surface which conforms to the cylindrical surface of the rotor and closes the pocket, and between that position and extended position, it bears against the interior side wall of the housing while still closing the pocket. A means is provided to bias each paddle towards that extended position, but to allow the paddle to move towards retracted position under urging of the interior side wall during operation of the device, fluid entering the housing through the inlet port is carried by the rotor, in compartments formed between adjacent paddles, the rotor and the interior walls of the housing, until the adjacent paddles encompass the outlet port, when the fluid is then expelled from the housing.